

Notice of Allowability

Application No.

09/764,476

Examiner

John B. Vigushin

Applicant(s)

ARMEZZANI ET AL.

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendments filed 02 December 2002 and 28 January 2003.
2. ☒ The allowed claim(s) is/are 26-31, 34-37 and 44.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☒ CORRECTED DRAWINGS must be submitted.
 - (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☒ to Paper No. 4.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the top margin (not the back) of each sheet. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1 <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____ |
| 5 <input type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____ | 6 <input type="checkbox"/> Examiner's Amendment/Comment |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |

DETAILED ACTION

1. The present Office Action is responsive to Applicant's amended responses filed December 02, 2002 and January 28, 2003. The Examiner acknowledges the amendments to the Specification and Claims 26, 34 and 44, and the cancellation of Claims 32, 33, 38-43 and 45. Claims 26-31, 34-37 and 44 remain pending in the instant amended Application.

Allowable Subject Matter

2. Claims 26-31, 34-37 and 44 have been allowed.
3. The following is an examiner's statement of reasons for allowance:

As to Claims **26-31** and **34-37**, patentability resides in **the combination** wherein *the first and second flexible circuitized substrates are comprised of a material selected from the group consisting of polyimide, polytetrafluoroethylene and epoxy glass cloth, **and** a second contact portion (of the at least one solder member) extending substantially within both of the aligned conductive apertures of the first and second flexible circuitized substrates to the external surface of the conductive aperture of the second flexible circuitized substrate so as to substantially form a solder dome thereon,* in further combination with the other limitations of base Claim 26.

As to Claim **44**, patentability resides in **the combination** of *at least one solder member including a first contact portion for connection to a printed circuit board extending from the external surface of the conductive aperture of the first circuitized substrate **and** a second contact portion extending substantially within both of the*

aligned conductive apertures of the first and second circuitized substrates to the external surface of the conductive aperture of the second circuitized substrate so as to substantially form a solder dome thereon, in further combination with the other limitations of the claim.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
5. Claims 26-31, 34-47 and 44 of the instant allowed Application will be renumbered as Claims 1-11, respectively, for publication in the issued patent.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Anthony (US 4,394,712; already of record in the instant Application) discloses all the limitations of Applicant's independent Claims **26** and **44**, including *at least one solder member including a first contact portion extending from the external surface of the conductive aperture of the first circuitized substrate and a second contact portion extending substantially within both of the aligned conductive apertures of the first and second circuitized substrates to the external surface of the conductive aperture of the second circuitized substrate so as to substantially form a solder dome thereon*, but **does not teach: 1) first and second flexible circuitized substrates comprised of a**


material selected from the group consisting of polyimide, polytetrafluoroethylene and epoxy glass cloth (from Applicant's Claim **26**); and **2**) a first contact portion for connection to a printed circuit board extending from the external surface of the conductive aperture of the first circuitized substrate (from Applicant's Claim **44**).

b) Caporizzo (US 6,013,876) discloses a circuitized substrate 101 having a solder member 105 with contact portions extending to both surfaces 106 and 107 of circuitized substrate 101 for establishing connection between circuitry 102 on the surfaces 106 and 107 of circuitized substrate 101 (Figs. 2 and 3; col.3: 15-22 and 32-40).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Vigushin whose telephone number is 703-308-1205. The examiner can normally be reached on 8:30AM-5:00PM Mo-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on 703-305-9883. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7382 for regular communications and 703-308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


John B. Vigushin
Examiner
Art Unit 2827

jbv
March 19, 2003